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Serial Number: 09/295,463 Filing Date: April 13, 1999

Art Unit: 1631

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Under the Progressive Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application Number 09/295,463 TRANSMITTAL Filing Date April 13, 1999 FORM First Named Inventor Lex M. Cowsert Art Unit (to be used for all correspondence after initial filing) Examiner Name Ardin H. Marschel Attorney Docket Number 18 ISI\$-3455 Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance communication to Technology Center (TC) Fee Transmittal Form Drawing(s) Appeal Communication to Board Licensing-related Papers of Appeals and Interferences Fee Attached Appeal Communication to TC Petition (Appeal Notice, Brief, Reply Brief) Amendment/Reply Petition to Convert to a Proprietary Information Provisional Application After Final Power of Attomey, Revocation Status Letter Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Terminal Disclaimer (dentify below): Extension of Time Request Request for Refund Express Abandonment Request CD, Number of CD(\$) Information Disclosure Statement Certified Copy of Priority Revocation of Power of Atttorney with Statement Under 37 CFR 3.73(b) Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Herb Boswell Individual name Signature Cate CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. Typed or printed name Pamela Grooms Date Signature LLUMM

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Application Number 09/295,463

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April 13, 1999

REVOCATION OF POWER OF ATTORNEY WITH NEW POWER OF ATTORNEY AND

CHANGE OF CORRESPONDENCE ADDRESS

10	SOUTH THE PLACE HEALTH OF ALL AND PRINCE	O' R GIODIA TO A TELLO ESTINE CERTIFICATION
	Application Number	09/295,463
	Filing Date	April 13, 1999
	First Named Inventor	Lex M. Cowsert
	Art Unit	1631
	Examiner Name	Ardin H. Marschel
	Attorney Docket Number	ISIS-3455

1

I hereby revoke all previ	ous powers of attorn	ey given in the abo	ve-identi	fied applicatio	n.	
A Power of Attorney	is submitted herewith.					
OR I hereby appoint the	practitioners associat	ed with the Custome	r Numbei		35807	
Please change the or The address ass Customer Numb		s for the above-ident	ified appl	ication to:		
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City		State		Zip)	
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Telephone		Fa	×			
I am the: Applicant/Inventor Assignee of record Statement under 3	of the entire interest.	sed. (Form PTO/SB/ 		*		te.
	SIGNATURE of	Applicant or Assign	ee of Re	cord		
Name B. Lynne Parsha						-
Signature						
Date 1-5	-04	Telep	1.	60 603-2460		
NOTE: Signatures of all the inventors signature is required, see below.	or assignees of record of the e	ntire interest or their represer	tative(s) are	required. Submit multi	ple forms If m	pre than one
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PTAS WOODCOCK WASHBURN KURTZ, ET AL. PAUL K. LEGAARD ONE LIBERTY PLACE - 46TH FLOOR 1650 MARKET STREET

PHILADELPHIA, PENNSYLVANIA 19103-7301

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REEL/FRAME: 010047/0285 NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNOR''S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

COWSERT, LEX M.

DOC DATE: 05/26/1999

ASSIGNOR:

BAKER, BRENDA F.

DOC DATE: 06/15/1999

ASSIGNOR:

MCNEIL, JOHN

DOC DATE: 06/02/1999

ASSIGNOR:

FREIER, SUSAN M.

DOC DATE: 06/09/1999

ASSIGNOR:

SASMOR, HENRI M.

DOC DATE: 06/11/1999

ASSIGNOR:

BROOKS, DOUGLAS G.

DOC DATE: 06/03/1999

ASSIGNOR:

OHASHI, CARA

DOC DATE: 05/24/1999

010047/0285 PAGE 2

ASSIGNOR:

WYATT, JACQUELINE R.

DOC DATE: 05/26/1999

ASSIGNOR:

BORCHERS, ALEXANDER H.

DOC DATE: 06/01/1999

ASSIGNOR:

VICKERS, TIMOTHY A.

DOC DATE: 05/27/1999

ASSIGNEE:

ISIS PHARMACEUTICALS, INC.

2292 FARADAY AVENUE

CARLSBAD, CALIFORNIA 92008

SERIAL NUMBER: 09295463

PATENT NUMBER:

FILING DATE: 04/13/1999

ISSUE DATE:

KIMBERLY WHITE, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS ·· 06-28-1999



RECORDATION FORM COVER SHEET PATENTS ONLY

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Patents and Trademarks. Please record the attached original documents or copy

1. Name of conveying party(ies):

Lex M. Cowsert, Brenda F. Baker, John McNeil, Susan M. Freier, Henri M. Sasmor, Douglas G. Brooks, Cara Ohashi, Jacqueline R. Wyatt, Alexander H. Borchers, Timothy A. Vickers

Additional name(s) of conveying party(ies) attached? () YES (X) NO

3. Nature of Conveyance:

(X) Assignment () Merger

() Security Agreement

() Change of Name

() Other:

Execution Date(s): May 26, 1999; June 15, 1999; June 2, 1999; June 9, 1999; June 11, 1999; June 3, 1999; May 24, 1999; May 26, 1999; June 1, 1999; May 27, 1999

2. Name and address of receiving party(ies):

Name: ISIS Pharmaceuticals, Inc.

Street Address: 2292 Faraday Avenue

City: Carlsbad

State California

ZIP 92008

Additional name(s) & address attached? ()YES (X)NO

 Application number(s) or patent number(s):09/295,463_ If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? () YES (X) NO

5. Name and address of party to whom correspondence concerning documents should be mailed: Name: Paul K. Legaard

Internal Address: WOODCOCK WASHBURN KURTZ

MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor

Philadelphia, Pennsylvania 19103-7301

Street Address: WOODCOCK WASHBURN KURTZ

MACKIEWICZ & NORRIS LLP

One Liberty Place - 46th Floor

1650 Market Street

Philadelphia, Pennsylvania 19103-7301

6. Total number of applications and patents involved: One

7. Total fee (37 CFR 3.41):.....\$40.00 (X) Enclosed

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June 21, 1999

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DOCKET NO.: ISIS-3455

PATENT

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WHEREAS, Lex M. Cowsert of Carlsbad, California, Brenda F. Baker of Carlsbad. California, John McNeil of LaJolla, California, Susan M. Freier of San Diego, California, Oceanside HS Henri M. Sasmor of Encinitas, California, Douglas G. Brooks, of San Marcos, California, Cara Ohashi of San Francisco, California, Jacqueline R. Wyatt of Encinitas, California, Alexander H. Borchers of Encinitas, California and Timothy A. Vickers of Oceanside, California, have invented a certain invention entitled IDENTIFICATION OF GENETIC TARGETS FOR OLIGONUCLEOTIDES AND GENERATION OF MODULATION BY OLIGONUCLEOTIDES FOR GENE MODULATION, for which we have made application for Letters Patent of the United States, said application having been filed on April 13, 1999 and assigned Serial No. 09/295,463; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign

ASSIGNMENT - PAGE 1 OF 12

DOCKET NO.: ISIS-3455

PATENT

to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

ASSIGNMENT - PAGE 2 OF 12

DOCKET NO.: ISIS-3455 PATENT	
IN WITNESS WHEREOF, we have hereunto set our bands and seals.	
Dated: 5 / Z.6 , 1999	
State of California)	
County of San Diego) ss.	
On this day of	_
WITNESS my hand and official seal.	

DOCKET NO.: ISIS-3455	PATENT
Dated: 6/15/99, 1999	Brenda F. Baker
State of California)	
County of San Diego	
Notary Public for the state, personally appeared to me on the basis of satisfactory evidence. Assignment and acknowledged to me that heigh	, 1999, before me, the undersigned, a Brenda F. Baker) personally known to me/proved to be the person who subscribed the foregoing executed the same in his/ter authorized capacity, at the person, or the entity on behalf of which the

WITNESS my hand and official seal.

LANE B.D. SCHWARTZ Commission # 1196197 Notary Public - Colifornia San Diego County My Comm. Extres Sop 13, 2002

DOCKET NO.: ISIS-3455		. 1		PATENT
Dated: 6/2/99	i, 1999	John McNeil		
State of California)	SS.			
County of San Diego)				
On thisON Notary Public for the state, person on the basis of satisfactory and acknowledged to me that he has been signature on the Assign executed the Assignment.	evidence to be the p leshe executed the	person who subscribe same in/his/her auth	ed the foregoing a corized capacity,	Assignment and that by
	WITNESS	my hand and official	seal.	

Signature of Notary

DOCKET NO.: ISIS-3455			PATENT
Dated: 9-June	, 1999	Susan M. Freier	· · · · · · · · · · · · · · · · · · ·
State of California) ss.		
County of San Diego	· j	*	
On this	ersonally appeared isfactory -ovidence ged to me that he/sh re on the Assignmen	to be the person who subs Dexecuted the same in his/fig	y known to me/proved scribed the foregoing authorized capacity,
LANE B.D. SCHW Commission # 11 Notary Public - Co San Diego Co. My Comm. Expresses	96197 \$ Ilifornia \$ Inty \$	S my hand and official seal.	

Signature of Notary

DOCKET NO.: ISIS-3455			PATENT
Dated: 6-11-99	, 1999	Then susne	
		Henri M. Sasmor	
State of California)) ss.	•	
County of San Diego)		
Notary Public for the state, pe to me on the basis of satis Assignment and acknowledge	rsonally appear factory eviden ed to me that (fe on the Assign	, 1999, before ed (Henri M. Sasmor) personal ee to be the person who sub she executed the same in his ment the person, or the entity of	ly known to me/proved scribed the foregoing er authorized capacity,

WITNESS my hand and official seal.

ASSIGNMENT - PAGE 7 OF 12

DOCKET NO.: ISIS-3455	PATENT
Dated: 6/3/99, 1999 Douglas G. Brooks	
State of California) ss.	
County of San Diego)	
On this	known to e foregoing ed capacity,

LANE B.D. SCHWARTZ
Commission # 1196197
Notary Public - California

WITNESS my hand and official seal.

Signature of Notary

DOCKET NO.: ISIS-3455	ATENT
Dated: may 34 , 1999 Cona Chashi Cara Ohashi	
State of California)) ss.	
County of San Diego) San Maleo	
On this 24th day of	roved to ignment distant
WITNESS my hand and official seal.	

ASSIGNMENT - PAGE 9 OF 12

LANE B.D. SCHWARTZ Commission # 1196197 Notary Public - California San Diego County y Comm. Baires Sep 13, 2002

DOCKET NO.: ISIS-3455	PATENT
Dated: 5/21, 1999 Quyuline R. Wyatt	-
State of California)) ss.	
County of San Diego)	
On this	ithe foregoing

WITNESS my hand and official scal.

ASSIGNMENT - PAGE 10 OF 12

Ø018/019

DOCKET NO.: ISIS-3455	\mathcal{U}	PATENT
Dated: <u>June 1</u>	, 1999 <u>Myzurler</u> Alexander H. B	orchers
State of California)	SS.	
County of San Diego)		
Notary Public for the state, per me/proved to me on the basis of a Assignment and acknowledged to	sonally appeared (Alexande atisfactory evidence to be the come that the she executed the the Assignment the person,	, 1999, before me, the undersigned, a er H. Borchers) personally known to e person who subscribed the foregoing e same in his/her authorized capacity, or the entity on behalf of which the

LANE B.D. SCHWARTZ
Commission # 1196197
Notary Public - California
Son Diego County
My Comm. Expires Sep 13, 2002

WITNESS my hand and official seal.

ASSIGNMENT - PAGE 11 OF 12

DOCKET NO.: ISIS-3455

Ø 019/01

PATENT

Dated: \$\(\frac{5}{27} \)	1999 Timothy A. Y	Vickers
State of California)	SS.	
County of San Diego)		
me/proved to me on the basis of a	ntisfactory evidence to be one that he she executed the Assignment the person	, 1999, before me, the undersigned, a othy A. Vickers) personally known to the person who subscribed the foregoing I the same in 103/her authorized capacity on, or the entity on behalf of which the

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LANE B.D. SCHWARTZ Commission # 1196197 Notary Public - California San Diega County